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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,948	08/07/2001	Stefan Wigger	33713W003	9507

7590

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EXAMINER

MCGUTHRY BANKS, TIMA M

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,948

Applicant(s)

WIGGER ET AL.

Examiner

Tima M. McGuthry-Banks

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-16 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed 7 November 2001 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, for documents AJ and AK. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

4. Claims 9-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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5. Claim 9 lacks sufficient antecedent basis for the limitation "the substance that forms boric acid" in lines 2 and 3 with respect to Claim 1.

6. In Claim 10, the addition of the word "like" to an otherwise definite expression extends the scope of the expression to render it indefinite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirooka et al (US 5,330,813).

Hirooka anticipates the claimed invention. Hirooka teaches a patch for preventing carburization (column 2, line 34) that comprises materials such as borax, boron oxide, borosilicic acid, phenylboric acid, and water glass (column 3, lines 32-34) and materials such as talc and magnesia (lines 53 and 54). The patch allows for a portion to be prevented (column 2, lines 43 and 44). Regarding Claim 7, Hirooka teaches talc. Regarding Claim 9, Hirooka teaches boric oxide and borax.

9. Claims 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirooka '813.

Hirooka anticipates the claimed invention. Hirooka teaches carburizing a surface (column 7, lines 10-12) by first preventing carburization on a portion of the surface by applying

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a patch of a material comprising borax, boron oxide, borosilicic acid, phenylboric acid, and water glass (column 3, lines 32-34) and materials such as talc and magnesia (lines 53 and 54).

Regarding Claim 15, the carburization occurs at 950° C (column 7, line 12). Regarding Claim 16, the patch also comprises a resin (column 9, line 42).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-6 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirooka '813.

Hirooka discloses the invention substantially as claimed. However, Hirooka does not disclose the weight ratio of the boron compound and the magnesium compound (talc) as claimed in Claims 2-6 or the composition of the boron compound and the magnesium compound as in Claims 11-13.

Regarding the weight ratio in Claims 2-6, Hirooka teaches using both types of materials, but not the weight ratio between them. It has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233.

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Regarding the compositions in Claims 11-13, Hirooka teaches that the resin is 5 to 80 parts by weight (column 9, lines 58-60), but not the parts by weight of the boron compound and magnesium compound (talc) separately. It has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233.

Allowable Subject Matter

12. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claim 10 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: Regarding Claim 8, the prior art of record does not teach an equivalence of talc, which is taught by Hirooka '813, and magnesium trisilicate as adjuvants. Regarding Claim 10, Hirooka teaches that the carburizing preventer is in the form of a patch, which teaches away from any equivalence to a liquid, semi-liquid, or paste as claimed.

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Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Choi (Derwent Acc. No. 2001-646019) teaches a carburizing preventing agent which comprises boron oxide, a resin, butyl cellosolve, pitch tar, viscogel, solsperse, and linseed oil (abstract). Chobe (JP 11-286620) teaches a coating material that can make substrate proof against cementation that comprises 5-40 mass % alkali salts and meta- and ortho-silicic acids to water glass (abstract). Katsunori (JP 2001-030086) teaches suppressing carburization with a strip of ceramic powder and a resin (abstract). Bodyaev Yu et al (Derwent Acc No. 2001-439873) teaches a mixture comprising a fluorine-containing material, silicate lump, silica-based materials, and boron oxide to prevent carburization (abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tima M. McGuthry-Banks, whose telephone number is 703-308-1917. The examiner can normally be reached on 9:30-3:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King, can be reached on 703-308-1146. The fax numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is 703-308-0651.

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Tina M. McGuthry-Banks
Examiner
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August 25, 2002